7 Freight Operational Strategies, Conditions, and Technologies

KYTC employs a myriad of operational strategies and technologies to help meet its goals and, by extension, the National Multimodal Freight Policy goals and National Highway Freight Program goals. Multiple strategies are used to maintain a transportation system that is safe, efficient, environmentally sound, and fiscally responsible as possible. Using innovation, KYTC will adapt to increasing demands on the freight system and continue to link users of the system to jobs and a growing economy. In addition to the Kentucky Riverport Planning Toolkit discussed in Chapter 2, the following sections highlight some of the strategies and technologies Kentucky employs to keep up with the changing freight landscape.

7.1 Classification Counts

KYTC collects continuous weigh-in-motion (WIM) data from 25-30 sites statewide. WIM data includes volume, direction, speed, vehicle classification, gross vehicle and axle weights, overall vehicle lengths, and individual axle spacing. KYTC collects vehicle volume data on a three-year schedule from about 17,000 count locations statewide. Of those, KYTC collects FHWA vehicle classification data on at least 25% of the sites on roadways functionally classified Minor Collectors and above. It is these locations that provide commercial vehicle volume data by truck type. KYTC vehicle count station locations can be viewed at http://maps.kytc.ky.gov/photolog/?config=TrafficCounts.

7.2 Overweight / Over-Dimensional Surveys

All loads are considered for a "Physical Route Overweight Over-Dimensional Survey" if the dimensions or weights could potentially cause damage to property or that may be detrimental to public safety. A Physical Route Overweight Over-Dimensional Survey is mandatory for loads exceeding 15'6" high or any load that has excessive width for the proposed route. Excessive width may be defined as any width greater than the narrowest point of any lanes of travel on the proposed route that would result in the vehicle or load traveling on shoulders or in emergency lanes. Route surveys older than 10 days are not considered due to changing construction zone dynamics. It is KYTC's plan for the route surveys to be included with the electronic Overweight Over-Dimensional permit application to be reviewed on a permit report. More information about KYTC's Overweight Over-Dimension Services can be viewed at http://drive.ky.gov/motor-carriers/Pages/OWOD-Services.aspx. The Overweight Over-Dimensional Route Survey Form TC 95-625 is accessible at http://transportation.ky.gov/Organizational-Resources/Forms/TC%2095-625.pdf and an excerpt can be seen on the following page:

SECTION 2: ROUTE DETAILS - For additional route details attach a separate sheet.

The following must be considered while physically performing the survey.

- All vertical/horizontal clearance **must** be checked at the highest/widest point of the load and lowest/narrowest of the area where the load will be traveling insuring that all obstructions can be traveled under, over, or ramped safely
- No obstruction can be moved or removed without written permission from the owner.
- A manufacturer's specification drawing must be attached.
- Insure that the weight does not exceed any highway or bridge posted limit.
- All loads over 200,000 lbs must attach a side & rear view drawing with axle spacing & weights.
- Identify all locations where bucket trucks may be needed.

ROUTE *(Name / Number)*	**DIRECTION** *(N S E W)*	**LANE OF TRAVEL** *(Right, Left, Center, Straddle)*	**NOTES: INCLUDE ALL OBSTRUCTIONS WITH MILE POINTS** *(i.e. bridges, lights, wires, mast arms, trees, signs, poles, guardrail, railroad, owner of obstruction & contact information if applicable, etc.)*

7.3 Notify Every Truck (NET) System[71]

The Traffic Response and Incident Management Assisting the River City (TRIMARC) Notify Every Truck Service (NETS) alerts commercial vehicle operators of condition that may interrupt travel on Kentucky's interstates and parkways. The free service is designed to advise drivers via SMS Text and/or email of route specific traffic information regarding closures expected to exceed two hours on interstates or parkways statewide. Alerts are managed from the TRIMARC Regional Traffic Operations Center in Louisville to provide current information on road closures due to unexpected events or planned community activities.

The objectives of NETS are to:

- Restore normal flow of vehicular traffic on interstate highways as rapidly as possible, following major incidents, in compliance with Quick Clear Laws
- Reduce the time required to clear the interstate highway system
- Decrease the time emergency responders are required at an incident on the interstate highways
- Reduce secondary accidents
- Reduce pollutants
- Obtain quicker notifications for commercial carriers
- Send a second notice once the incident has been cleared
- Allow commercial carriers to alert their drivers of the delay
- Reduce the total number of vehicles trapped in the queue of major incidents
- Allow commercial carriers to dispatch the necessary assets to clean up incidents

[71] *TRIMARC Notify Every Truck. http://www.notifyeverytruck.com. Accessed June 2017.*

7.4 Traffic Operations/Management Centers[72]

The Traffic Response and Incident Management Assisting the River City (TRIMARC) team coordinates public agencies and private sector companies to detect, respond to, and clear traffic incidents as quickly as possible in order to increase safety and reduce congestion.

The team of representatives from KYTC, FHWA, law enforcement, emergency management, fire and rescue, towing and recovery, and other emergency responders combine their efforts with the goal of ensuring the interstate system in Kentucky Highway District 5 runs at peak efficiency. Cooperation, communication, and training ensure increased safety to the motoring public and the incident responders. Using AASHTO's National Traffic Incident Management Coalition's (NTIMC) National Unified Goal (NUG) as a guide, the group critiques responses to total closure and other major interstate incidents to ensure improved response to similar planned and unplanned events in the future.

To mitigate the effects of these planned and unplanned events, and to ensure the safety of the traveler and efficiency of the highway network within the KYTC District 5 (Louisville area), transportation and public safety professionals meet quarterly to review recent incidents and determine and share lessons learned to improve future incident response.

This and more information about the TRIMARC Freeway Incident Management (FIM) service can be viewed at http://trimarc.org/fim.html. More information about the AASHTO National Traffic Incident Management Coalition's (NTIMC) National Unified Goal (NUG) can be viewed at http://ntimc.transportation.org/Pages/NationalUnifiedGoal(NUG).aspx.

There are four other traffic operations/management centers, similar to TRIMARC, operating in Kentucky. These locations are as follows:

- The Statewide Traffic Operations Center is operated by KYTC's Office of Highway Safety in Frankfort, KY.
- The Cumberland Gap Tunnel Authority, located in Middlesboro, KY, operates as a remote Traffic Operations Center for KYTC, but is independent of the Statewide Traffic Operations Center.
- The Lexington Traffic Management Center, called "Real-time Traffic Ticker", operates independently in Lexington, KY.
- The Ohio Traffic Operations Center monitors Boone, Campbell, Gallatin, and Kenton Counties in northern Kentucky.

[72] *TRIMARC Freeway Incident Management (FIM). http://trimarc.org/fim.html. Accessed June 2017.*

7.5 Safety Assistance for Freeway Emergencies (SAFE) Patrol[73]

The Safety Assistance for Freeway emergencies (SAFE) Patrol is designed to aid motorists and assist with incident management. This program, from the Kentucky Office of Highway Safety Division of Incident Management, is part of a comprehensive incident management initiative to improve safety, reduce delay caused by nonrecurring congestion, and improve operations of the freeway system. SAFE Patrol provides services on six of Kentucky's interstates, the Parkway system, sections of US 23, and sections of KY 80. More information about SAFE Patrol, including the specific interstates serviced and contact information can be viewed at http://transportation.ky.gov/Incident-Management/Pages/Safe-Patrol.aspx. The SAFE Patrol provides many services to motorists, some of which are listed below.

SAFE Patrol services include:

- Assistance to motorists, including
    - fuel and oil
    - air for tires
    - changing flat tires
    - jumper cables for dead batteries
    - other minor automotive repairs
- Traffic control assistance to law enforcement
- Debris removal
- Infrastructure monitoring
- Abandoned vehicle reporting

[73] *KYTC Safe Patrol. http://transportation.ky.gov/Incident-Management/Pages/Safe-Patrol.aspx. Accessed June 2017.*